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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/640,284 | 08/16/2000 | Yiming Ye | YOR9-2000-0149US1 (8728-3 | 2916 |

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| EXAMINER | |
|---|---|
| AMINI, JAVID A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2672 | |

DATE MAILED: 07/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/640,284 | YE, YIMING | |
| | Examiner | Art Unit | |
| | Javid A. Amini | 2672 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *18 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-5,7,8,10-13,15-17,19,20 and 22-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/7/04;3/25/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

### *Response to Arguments*

Applicant's arguments with respect to claims 3-5, 7-8, 10-13, 15-17, 19-20, and 22-26 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3-5, 7-8, 10-13, 15-17, 19-20, and 22-26 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant in claims 3, 15 and 31-32, claims, "adjusting a display unit", and it is not clear whether Applicant refers to a separate device or whether the same device. Because Applicant claims that there is free space between the display device and the visual device in the claims.

### *Drawings*

The drawings were received on 4/18/2005. These drawings are acceptable.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 10-13, 15 and 22-26 rejected under 35 U.S.C. 103(a) as being unpatentable over Steven G. Goodridge (hereinafter, Goodridge).

1. Claims 3 and 15.

Goodridge in figs. 1 and 2 illustrates the preamble of the claim. "A method of visual communication between a signal transmitting device and a signal receiving device comprising:" Examiner's interpretation: Applicant uses the broad language for a video camera-recording device as a "visual recording device" and target location as a "display unit". Goodridge teaches on page 1 under subject of Abstract, a technique for using economical multimedia sensors to autonomously track human beings is presented. A sequence of color images captured from a video camera is processed in real-time to determine target locations. This data may be used to guide a computer-controlled pan-tilt-zoom camera, and may be fused with sound information to determine the location of a person speaking. Applications include automated videoconferencing, security/surveillance, home automation, and assistance for the disabled. A prototype of this system has been implemented on an ordinary multimedia PC running OS/2.
Examiner's interpretation about the "display unit" vs Applicant's target location. Goodridge monitors human beings as a target location, and it is obvious to use a captured dynamic image of human beings on a display unit, since one of the applications includes home automation.
It is obvious "adjusting a display unit of said signal transmitting device and a visual recording device of said signal receiving device and using an alternating display process to establish a visual connection between said display unit and said visual recording device" Goodridge on page 3 section 6 teaches adjusting the target object with the reference object (threshold), The color

difference for each pixel is a distance metric of the form of equation shown on page 3 at right col. Where ΔR, ΔG, and ΔB are the magnitudes of the difference between the present and reference image R, G, and B pixel components, and P is an integer exponent greater than zero. For P = 1, this is the rectilinear "Manhattan" distance; for P = 2 it is the Euclidean distance, and for P-->∞ it becomes the maximum of { ΔR, ΔG, ΔB }. Applicant claims, "encoding a signal pattern as a visual image pattern using a generated signal template of said signal transmitting device;" Examiner's interpretation: the encoding in general means (The first of three stages in the memory process, involving processes associated with receiving or registering stimuli through one or more of the senses and modifying that information), Goodridge in fig. 5 illustrates the limitations of this claim. Goodridge in figs. 3-4 illustrates that there is free space between the target location and the camera device, see following limitations: visually transmitting the visual image pattern through free space from the display unit of said signal transmitting device. Goodridge in fig. 1 illustrates the limitations of "receiving the visual image pattern using the visual recording device of said signal receiving device; and decoding the signal pattern from the visual image pattern using an image decoder of the signal receiving device wherein adjusting the visual recording device includes the steps of: automatically adjusting pan and tilt of the visual recording device to have a view of the visual image pattern displayed by the display unit; and automatically adjusting an angle size of the visual recording device", Examiner's interpretation: Applicant claims angle size of the visual recording device, however, Goodridge teaches zooming. The following limitations are covered by Goodridge and repeated on previous section. "Selecting a first tilt and a first pan position; Goodridge on page 3 at second col. teaches comparing the distance to a threshold to detect objects. Examiner's interpretations: The

following limitations are comparing the positions with set threshold that is why panning tilting and zooming are required. "Panning for a position that does not overlap said first pan position; checking if panning positions have been exhausted; determining whether the first tilt is in a horizontal position if all panning positions have been exhausted: and determining a new tilt by moving the first tilt upwards for the value of h/2 if the first tilt is in a horizontal position. Goodridge on page 2 first col. under section 2 teaches the camera is a Canon VC-C1 communication camera with computer controllable pan, tilt, zoom, and focus features. Examiner's interpretation: a threshold depends on size of an object or a display area (height and wide) that can be written into the program form by a user. The value that Applicant claims as h/2 is depended to the height of an object. It would have been obvious to a person skill in the art to use the technique of Goodridge's work, because it considers economical multimedia sensors to automatically track an object, that object can be captured from a video camera that is processed in real-time to determine target locations. This data may be used to guide a computer-controlled pan-tilt-zoom camera, and may be fused with sound information to determine the location of a person speaking. Applications include automated videoconferencing, security/surveillance, home automation, and assistance for the disabled.

2. Claims 10-11 and 22-23.

Applicant claims some threshold conditions for the panning and tilting positions. Goodridge on page 1, second col. teaches that level of real-world awareness will allow such applications as automatic control of videoconferencing equipment, intelligent security and surveillance systems, human-friendly home and building automation systems, and automated services for the disabled. Much of this is already possible with available PC hardware.

3. Claims 12 and 24.

See rejection of claim 3.

4. Claims 13-14 and 25-26.

Applicant in claims 13-14 claims the limitations that involved a threshold that means the height or the wide of the object is equivalent to the vertical position. The value of the threshold is equal to the length of the vertical position. Therefore the camera can be moved (tilted) between the lower and upper part of the vertical position.

**Claims 4-5, 7-8, 16-17, 19-20 and 31-32 rejected under 35 U.S.C. 103(a) as being unpatentable over Goodridge, and further in view of Rhoads.**

5. Claims 31-32.

See rejection of claim 3 and 7-8.

6. Claim 4.

Goodridge does not explicitly specify how to divide the visual image pattern into a plurality of of circles within blocks, however, Rhoads in Figs. 21A and B illustrates the step of dividing the image of the signal pattern into a plurality of blocks. Rhoads in Fig. 6 illustrates the step of determining the centers of said blocks using a position and radius look-up table and also see in Fig 22 illustrates using four points (954) to guide all further image processing operations. Rhoads in Figs. 19 and 20 illustrates a plurality of circles within said blocks having corresponding centers and radiuses determined by the position and radius look-up table. Rhoads in paragraph 0570 teaches The exemplary application uses six basic parameters: 1) luminance; 2) difference from local average; 3) the asymmetry factor (with or against the grain); 4) minimum linear factor; 5) bit plane bias factor; and 6) global gain (the user's single top level gain knob).

Rhoads in paragraph 072 teaches that first scan this into a digitized form via a normal high quality black and white scanner with a typical photometric spectral response curve, as for "determining a plurality of black and white intensities from said average intensities of respective blocks of each of said circles using predetermined values". Rhoads in Fig. 40 illustrates the step of decoding a pattern created by said black and white intensities. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Rhoads's method, that includes inputting the document into a second medium; decoding symbols into binary security data representing the security information; and outputting the binary security data in a format retrievable to be interpretable as the security information by a display device into Goodridge's invention in order to provide better security and safety of data.

7. Claims 5, 16-17.

See rejection of claim 4.

8. Claims 7, 8 and 19-20.

Rhoads in paragraph 0332 teaches the blobs are groups of adjoining pixels each having an identical pixel value. Rhoads does not explicitly specify that circles are 35% of the length of their respective blocks. Applicant should provide an explanation to specify the significant of this 35%, because the reference teaches a change of even one bit value in such a file might change a circle to a square, and this represents 50% see paragraph 0358.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A. Amini whose telephone number is 571-272-7654. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 571-272-7664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JEFFERY BRIER
PRIMARY EXAMINER

Javid A Amini
Examiner
Art Unit 2672

Javid Amini